

Date: Thursday, 2/8/2007 12:43:10 PM  
User: Kim Johnston

# Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: HANDLE WELDMENT
Job Number	: 30720		
Estimate Number	: 12050		
P.O. Number	: <i>N/A</i>	Part Number	: D3355047
This Issue	: 2/8/2007	S.O. No.	: <i>N/A</i>
Prsht Rev.	: NC	Drawing Number	: D3355 REV B
First Issue	: <i>N/A</i>	Project Number	: N/A
Previous Run	: 29523	Drawing Revision	: B
		Material	: <i>N/A</i>
Written By	: <i>[Signature]</i>	Due Date	: 2/23/2007
Checked & Approved By	: <i>[Signature]</i>	Qty:	4 Um: Each
Comment	: est rev A 06.01.20 new issue EC		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	D33555	medium tubing
-----	--------	---------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

pick:

Qty	Part number	Description	Batch
1	D3355-5	medium tubing	<i>B26943</i>

*Pl 07.02.09*

*(4)*

2.0	D33557	small tubing
-----	--------	--------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

pick:

Qty	Part number	Description	Batch
1	D3355-7	small tubing	<i>B26944</i>

*Pl 07.02.09*

*(4)*

3.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
-----	-------------	------------------------------



Comment: LARGE FABRICATION RESOURCE 1  
Weld assembly as per dwg

*Pl 07.02.09*

*(4)*

4.0	QC9	VISUAL WELDING INSPECTION
-----	-----	---------------------------



Comment: VISUAL WELDING INSPECTION

*Pl 07/02/12*

5.0	QC5	INSPECT WORK TO CURRENT STEP
-----	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

*Pl 07/02/12*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: 13 Date: 07/02/14  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 2/8/2007 12:43:10 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HANDLE WELDMENT

Job Number: 30720

Part Number: D3355047

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

POWDER COATING

POWDER COATING



m18052



Comment: POWDER COATING

Powder Coat Fire Red (Ref: 4.3.5.10) as per QSI 005 4.3

FR/YL

07/02/12

(4)

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

07/02/12 (4)

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: WS21

PL 07.02.12

(4)

9.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/02/14

(4)

Job Completion



C207102114

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

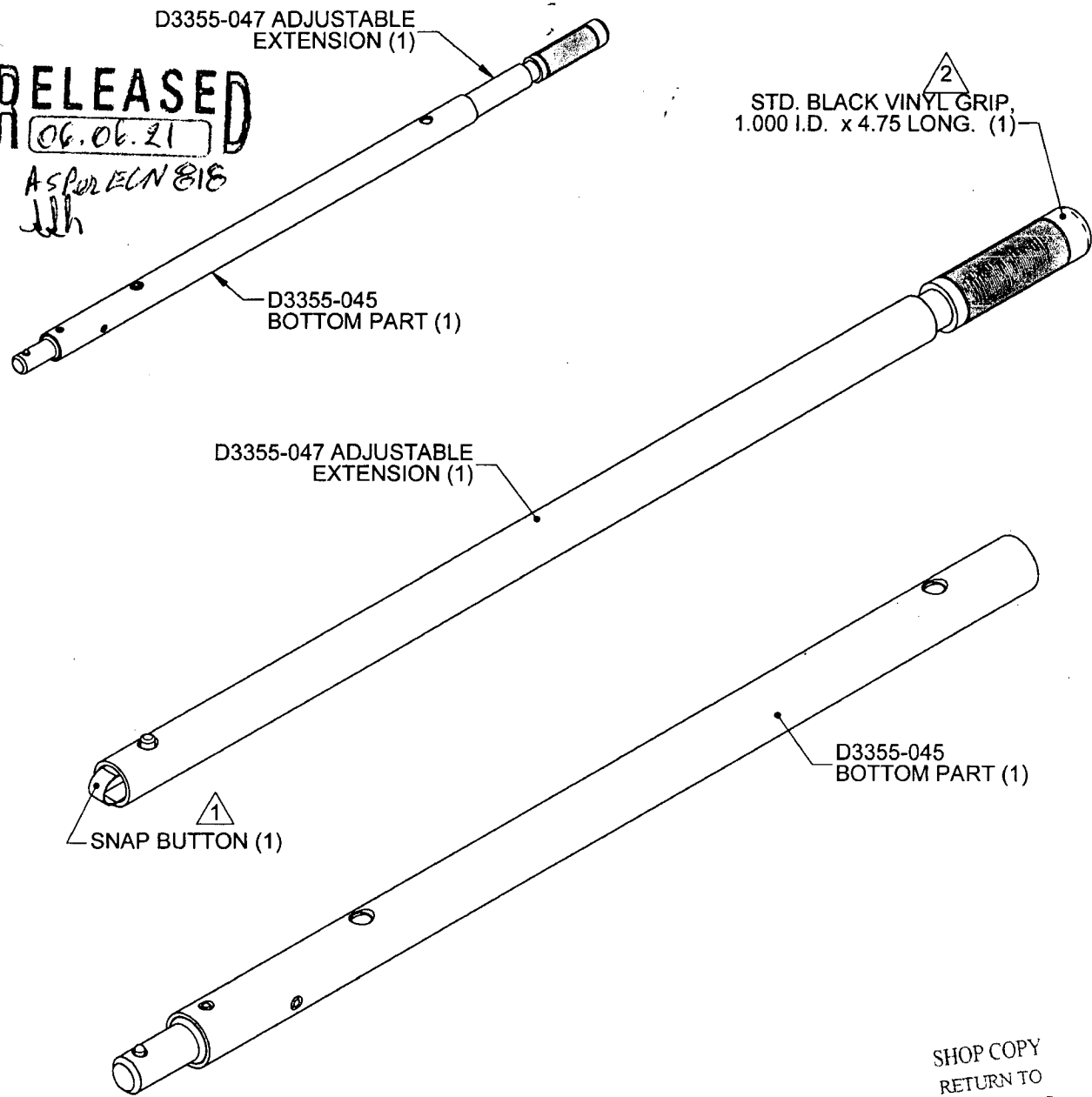
**NOTE:** Date & initial all entries



DESIGN RF	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3355</b>	REV. B SHEET 1 OF 6
DATE <b>06.05.31</b>		TITLE <b>HANDLE WELDMENT</b>	SCALE 1:8
A	05.02.07	NEW ISSUE	
B	06.05.31	EDITED NOTE 1 (SHEET 2), UPDATE DETAIL B	

**RELEASED**  
**06.06.21**

AS PER ECN 818  
*[Signature]*



**D3355-041 HANDLE ASSEMBLY**

**NOTES:**

- 1) POSSIBLE SUPPLIER: REID TOOLS SUPPLY CO. P/N VA-2160
- 2) POSSIBLE SUPPLIER: REID TOOLS SUPPLY CO. P/N GP-1R

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO **30720**

**COPYRIGHT © 2005 BY DART AEROSPACE LTD.**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

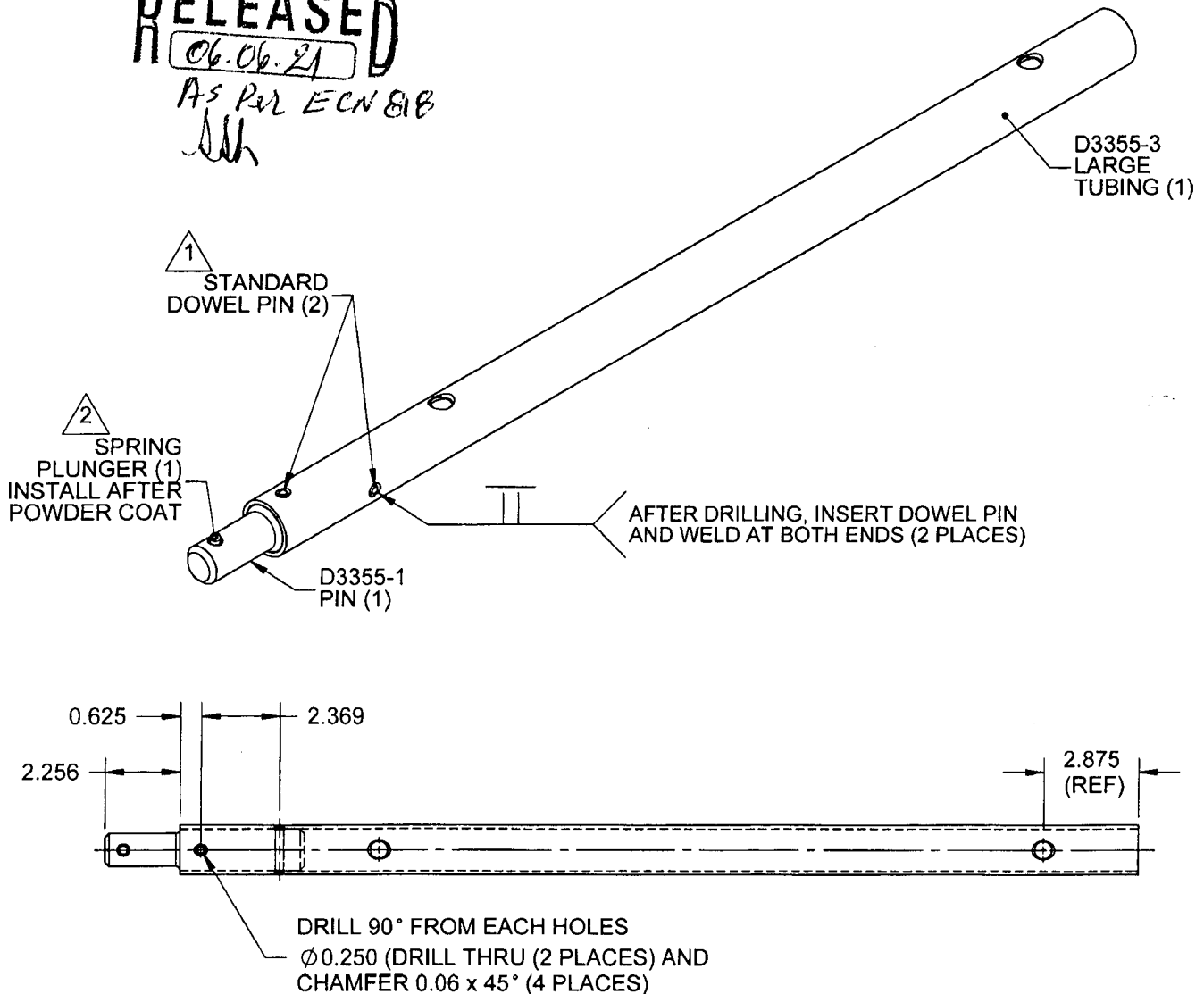


DESIGN RF	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3355</b>	REV. B SHEET 2 OF 6
DATE <b>06.05.31</b>	TITLE <b>HANDLE WELDMENT</b>	SCALE 1:5	

**RELEASED**  
**06.06.21**

AS PER ECN 818

*[Signature]*



### **D3355-045 BOTTOM PART**

#### **NOTES:**

- 1) STEEL STANDARD GROUND DOWEL PIN,  $\varnothing 0.250 \times 1.50$  LONG  
POSSIBLE SUPPLIER: SPAENAU, P/N 238-043
- 2) SPRING PLUNGER, POSSIBLE SUPPLIER: REID TOOLS SUPPLY CO. P/N VA-7130
- 3) WELD PER DART QSI 004
- 4) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.5
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES
- 7) BREAK ALL SHARP EDGES 0.010 TO 0.020



SHOP COPY  
RETURN TO  
ENGINEERING

UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

WORK ORDER  
NO. **30720**

**COPYRIGHT © 2005 BY DART AEROSPACE LTD.**

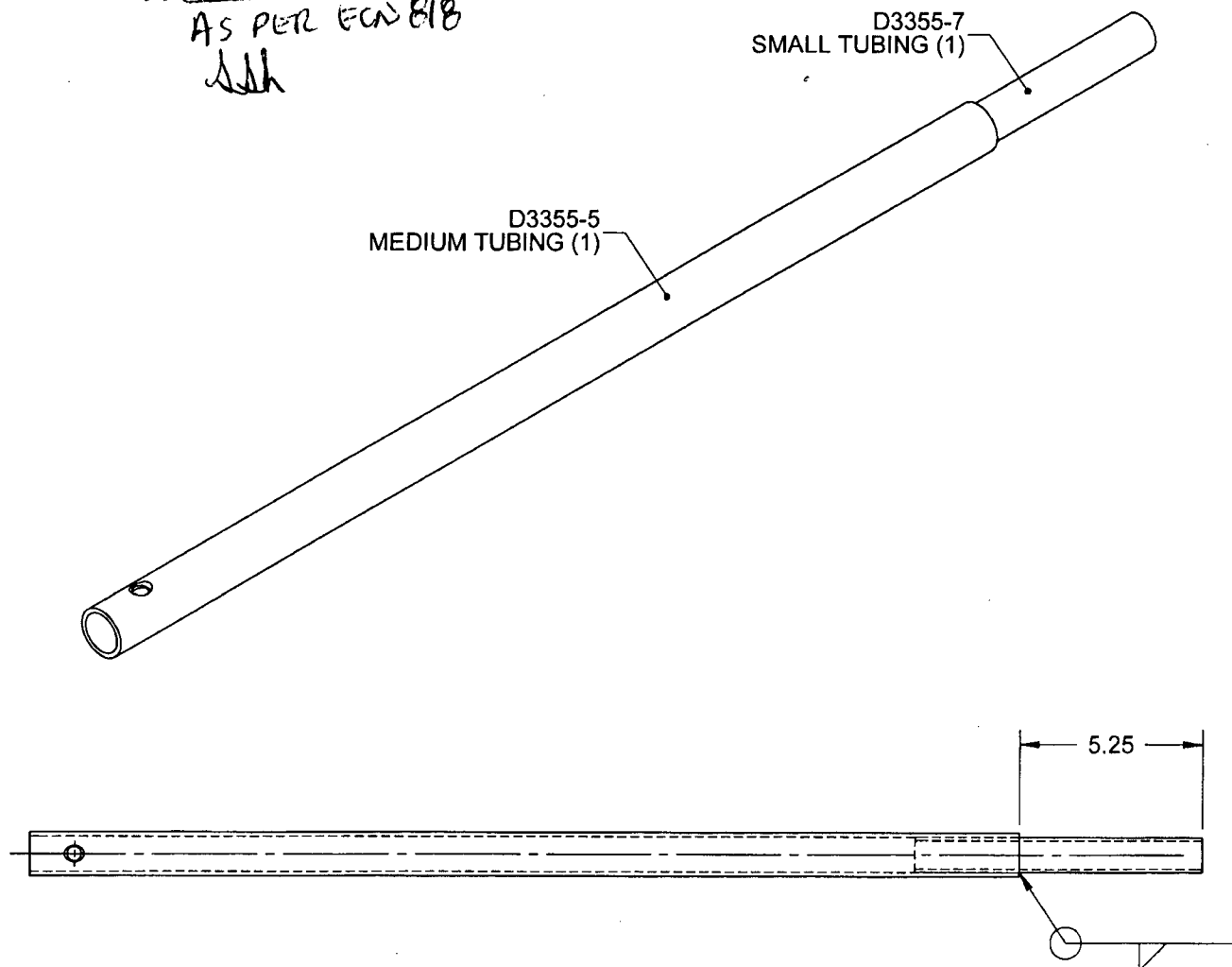
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN RF	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3355</b>	REV. B SHEET 3 OF 6
DATE <b>06.05.31</b>	TITLE <b>HANDLE WELDMENT</b>		SCALE 1:5

**RELEASED**  
**06.06.21**

AS PER ECN 818  
*[Signature]*



**D3355-047 ADJUSTABLE EXTENSION**

**NOTES:**

- 1) WELD PER DART QSI 004
- 2) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.5
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.010 TO 0.020

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. **30720**

**COPYRIGHT © 2005 BY DART AEROSPACE LTD.**

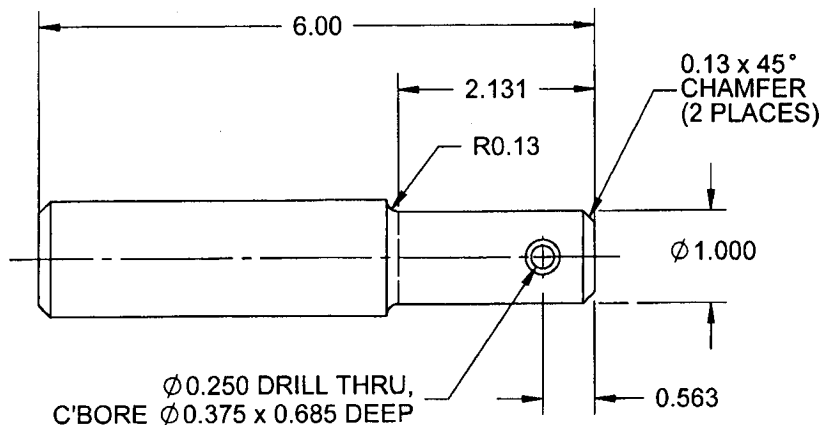
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.







DESIGN RF	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3355	REV. B SHEET 4 OF 6
DATE 06.05.31	TITLE HANDLE WELDMENT		SCALE 1:2

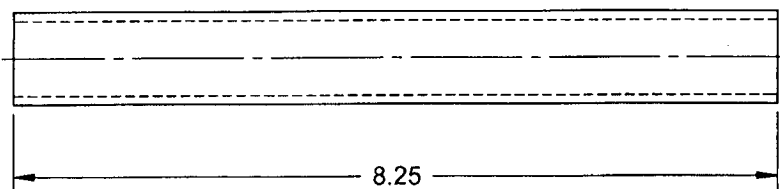


RELEASED  
06.06.21  
AS PER ECN 818

### D3355-1 PIN

#### D3355-1 NOTES:

- 1) MATERIAL: AISI-4130/ AISI-4140 OR ASTM A304-02/ A-434-BC/ A193-03 - GRADE-B7/ A29-03/ A322-91 OR UNS#-G41400 ROUND BAR, (REF. DART SPEC. M4140H-R)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020



### D3355-7 SMALL TUBING

#### D3355-7 NOTES:

- 1) MATERIAL: AISI 1018-1025 MILD STEEL SEAMLESS ROUND TUBING (REF. DART SPEC. M1020TR1.000W.095)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 30120

COPYRIGHT © 2005 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

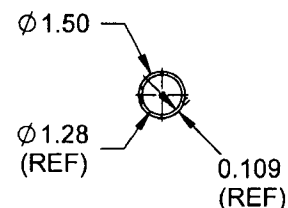
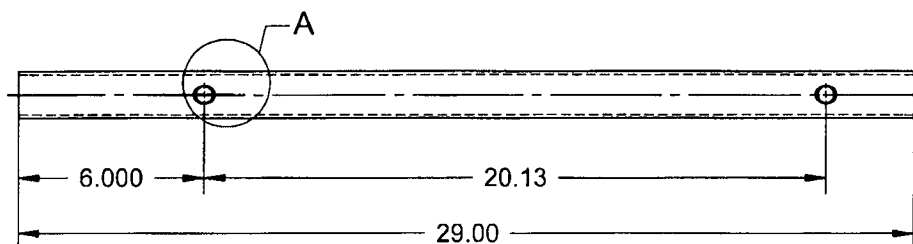
**DART**

DESIGN RF	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. <b>D3355</b>	REV. B SHEET 5 OF 6
DATE <b>06.05.31</b>	TITLE <b>HANDLE WELDMENT</b>		SCALE 1:6

CHAMFER  $\phi 0.687$  (11/16)  
x 45°, 0.060 DEEP  
(2 PLACES)

$\phi 0.531$  (17/32) DRILL  
THRU (2 PLACES)

DETAIL A  
SCALE 1 : 2



### D3355-3 LARGE TUBING

#### NOTES:

- 1) MATERIAL: AISI 1018-1025 MILD STEEL SEAMLESS ROUND TUBING  
(REF. DART SPEC. M1020TR1.500W.109)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.015 TO 0.030

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
30720

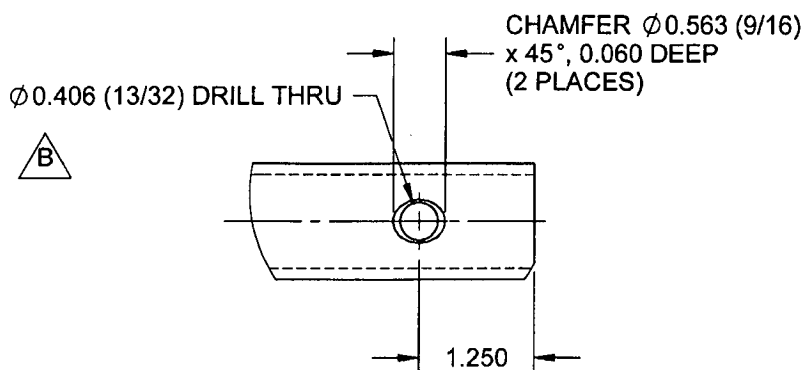
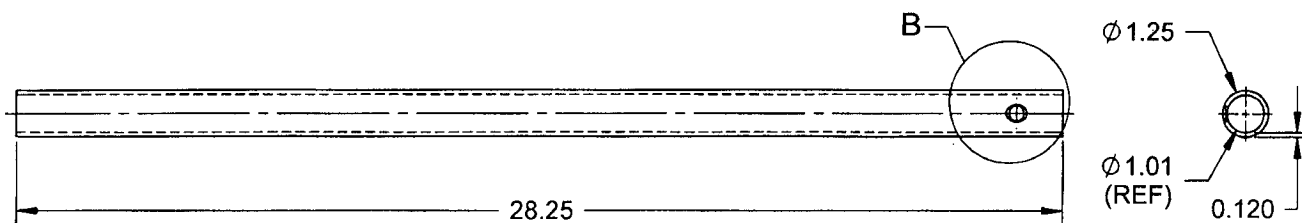
COPYRIGHT © 2005 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



**DART**

DESIGN RF	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED	DRAWING NO. <b>D3355</b>	REV. B SHEET 6 OF 6
DATE <b>06.05.31</b>		TITLE <b>HANDLE WELDMENT</b>	SCALE 1:5

**RELEASED**  
*[06.06.21]*AS PER ECN 818  
*[Signature]***DETAIL B  
SCALE 1 : 2****D3355-5 MEDIUM TUBING****NOTES:**

- 1) MATERIAL: AISI 1018-1025 MILD STEEL SEAMLESS ROUND TUBING  
(REF. DART SPEC. M1018TR1.250W.120)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.015 TO 0.030

SHOP COPY  
RETURN TO  
ENGINEERING  
CONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
**30720****COPYRIGHT © 2005 BY DART AEROSPACE LTD.**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.